# MONTANA DEPARTMENT OF TRANSPORTATION

HIGHWAY PROJECT COST ESTIMATING AND MANAGEMENT (HPCE)



CONTRACT#: 308059, RESEARCH PROJECT#: 8189

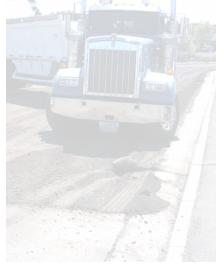
DATE: APRIL 2, 2007

MONTHLY PROGRESS REPORT #1

PERIOD: MARCH 1, 2007 - MARCH 31, 2007







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#### INTRODUCTION

Sierra Transportation Engineers, Inc. (STE) is pleased to provide its first monthly progress report for Montana Department of Transportation (MDT) contract number 308059, titled "Highway Project Cost Estimating and Management (HPCE)." This monthly progress report covers the period March 1, 2007 to March 31, 2007.

The overall objective of this project is to develop a comprehensive document to determine the best practice of efficient highway cost estimating for Montana. Upon completion of this research, recommendations are to be made for improvements to the current cost estimation process.

The specific tasks identified in the project work plan are:

- Task 1 MDT's Structure, Operations, and Current Process
- Task 2 Critical Review of NCHRP 8-49 Literature Review
- Task 3 Recommendations
- Task 4 Consultant Visits and Schedule
- Task 5 Develop Detailed Strategic Procedure
- Task 6 Implementation Plan

The following paragraphs describe the work accomplished during this reporting period under each task.

### TASK 1 - MDT'S STRUCTURE, OPERATIONS, AND CURRENT PROCESS

#### KICK-OFF MEETING

Based on discussions with MDT Project Manager, Mr. Craig Abernathy, a kick-off meeting was scheduled for March 23, 2007 in Helena to discuss the project activities in detail. It was decided to conduct the kick-off meeting during the third week of this reporting period to allow the STE team ample time to develop a comprehensive list of agenda topics for discussion during the meeting.

A meeting agenda was developed by STE and submitted to the MDT Project Manager for review and comment. The MDT Project Manager circulated the final meeting agenda among the panel members.

STE prepared a PowerPoint presentation for the kick-off meeting that covered each project task in detail and provided MDT panel members the opportunity to discuss STE's approach to this project. The kick-off meeting was held at MDT headquarters in Helena on March 23, 2007 from 1:00 PM to 3:30 PM. STE provided handouts containing the presentation to the project panel.

Mr. Abernathy discussed the importance of progress reports and asked the panel to carefully review and if needed comment on project progress reports. He emphasized that "draft" reports provided to MDT should be the "best effort" and follow the MDT formatting requirements.

STE team members, Dr. Sirous Alavi and Dr. Kambiz Raffiee, presented a PowerPoint presentation covering a detailed review of work plan by task including schedule of deliverables. STE stated that it is important to have a consensus on the definitions of "base cost" and "final cost." STE suggested that the

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"base cost" is the project cost at the time of programming. The panel will discuss this issue internally and will let STE know the outcome. STE also suggested that the "final cost" should be defined as the final project cost as constructed. The panel agreed with this definition.

STE also presented a draft of the data request format to the MDT project manager and the panel. STE envisions requesting datasets from 10 to 20 projects statewide to develop the database for tracking and understanding uncertainties impacting the cost estimating process. These projects need to be a combination of projects in different categories. The panel will assist STE in deciding the detailed breakdown of each data category. This can include:

By size: Large projects versus small projects

• By type: New construction, reconstruction, rehabilitation, or maintenance

By region: Different districtsOther as defined by MDT

Mr. Abernathy emphasized the importance of providing STE the requested data as soon as practical for the successful outcome of the project. The meeting was adjourned at 3:30 PM. After the meeting STE provided the MDT Project Manager and panel members electronic copies of the presentation and the meeting notes.

#### Worked planned for next month

STE will continue reviewing the current MDT structure, operations, and processes. In particular, STE will finalize the draft data request template for MDT to review and comment.

#### TASK 2 – CRITICAL REVIEW OF NCHRP 8-49 LITERATURE REVIEW

During this reporting period STE initiated its review of NCHRP Report 574, "Guidance for Cost Estimation and Management for Highway Projects During Planning, programming, and Preconstruction." STE discussed the NCHRP 8-49 findings with the project panel during the kick-off meeting. STE intends to review and extract any information from the NCHRP 8-49 literature review that may be applied to Montana's cost estimation processes.

#### Worked planned for next month

STE will continue reviewing the NCHRP 8-49 report and conducting its literature review.

#### TASK 3 – RECOMMENDATIONS

No work was scheduled nor conducted for this task during this reporting period. However, the scope of activities under this task was thoroughly discussed with the MDT project panel during the kick-off meeting.

#### Worked planned for next month

No activity is planned.

#### TASK 4 – CONSULTANTS VISITS AND SCHEDULE

No work was scheduled nor conducted for this task during this reporting period. However, the scope of activities under this task was thoroughly discussed with the MDT project panel during the kick-off meeting.

#### Worked planned for next month

No activity is planned.

#### TASK 5 – DEVELOP DETAILED STRATEGIC PROCEDURE

No work was scheduled nor conducted for this task during this reporting period. However, the scope of activities under this task was thoroughly discussed with the MDT project panel during the kick-off meeting.

#### Worked planned for next month

No activity planned.

#### TASK 6 – IMPLEMENTATION PLAN

No work was scheduled nor conducted for this task during this reporting period. However, the scope of activities under this task was thoroughly discussed with the MDT project panel during the kick-off meeting.

#### Worked planned for next month

No activity planned

#### PROJECT SCHEDULE AND FINANCIAL SUMMARIES

Figure 1 shows the project expenditures versus planned budget for each task. Figure 2 represents the cumulative project expenditures versus budget for the entire project to date.

All project activities are per schedule and the project is within planned budget. STE team believes that this project has had a very good start and does not foresee any problems to report.

\$250,000 As of March 31, 2007 ■ Cumulative to Date ■ Budget \$200,000 \$150,000 \$100,000 \$50,000 \$0 Task 1 Task 2 Task 3 Task 4 Task 6 Task 5 **Total Project** 

Figure 1. Expenditures Versus Planned Budget for Each Task

Figure 2. Cumulative Expenditures Versus Budget

